

# Tough terminals for mission critical communications

Tait DMR is a highly reliable, modern, digital radio solution that is designed for mission critical environments. Tait DMR offers a digital communications solution based on the DMR standard.

The TP9300 portables offer conventional and trunked DMR operation as well as full MPT 1327, and analog conventional FM in one device.

TP9300 portables support smart features such as Man Down functionality, and are IP68 dust/waterproof rated for tough conditions.













### **FEATURES AND BENEFITS\***

# Improve workforce safety with the following TP9300 features

- Man Down and Lone Worker are standard
- Wireless audio accessories utilizing Bluetooth technology for TP9355 and TP9360 portables\*
- Crystal-clear communications enabling all personnel to understand each other – Digital Noise Reduction is available for DMR calls
- Programmable orange emergency key at base of antenna for ease of location in dark or restrictive environments
- Emergency calls have priority access to trunked networks
- Intrinsically Safe options available (refer to TP9331E specifications)

### Improve your organization's efficiency

- Text messaging for enhanced and unambiguous communications
- Pre-defined status messages for fast notification and response in common situations
- Over-the-air-programming (OTAP) with the industry-leading EnableFleet configuration management system delivers software and firmware changes over the Tait DMR Tier 3 radio network, making it faster, easier and more affordable to update and optimize the performance of the radios in your fleet

#### **Designed to perform**

- Water-shedding grill maintains transmitted voice clarity and high audio volume in wet environments
- IP68 dust-proof and immersible
- IP65 water jet protection
- Display screen protected by recess\*
- Shock absorbing impact protected corners

### **User Interface**

- 4 programmable function keys including emergency key
- Keypad and display options with common menu structure
- Zone selector switch to provide easy access to more programmable features
- Black, red, yellow, orange, and hi-visibility green color options for easy identification in the field

### Voice Communications Delivery on Operational Needs

- Quad mode terminal offering Trunked DMR, Conventional DMR, MPT 1327 and analog conventional FM in one device
- Roaming between MPT 1327 and DMR Tier 3 trunked networks
- Roaming between Conventional FM and DMR Tier 2 Conventional networks
- Group calls allow separate teams to communicate amongst themselves without having to listen to irrelevant traffic
- Analog scan capability includes Priority and Dual Priority, Editable, Zone and Background Scan
- PSTN dialling allows a user to make phone calls on DMR systems that support telephone interconnect

#### **Talkgroup features**

• Trunked operation allows for individual and private calls within designated groups

### Facilities to improve network security

- DMR trunked networks authenticate all terminals before they are given access
- Stun and Revive are implemented to temporarily deny a specific portable access to the network
- EnableProtect Advanced System Key option for programming security

## Complete package with accessories portfolio

- Audio accessories including speaker-microphones, headsets and earpieces
- Choice of chargers, including in-vehicle, single fast chargers, and 6 way multi-chargers<sup>^</sup>
- Standard and high capacity Li-Ion batteries available
- Wide selection of carry cases and accessories

#### **Data Services**

- Short data messages for status and text
- Packet data over traffic channels for work force management and customer specific applications

\* Not all features are supported in all models or modes of operation. Contact Tait or an authorized channel partner for more details.

### TP9300E SPECIFICATIONS



GENERAL INFORMATION	TP9335E/TP9340E
Conventional Mode	
Networks	26
Channels/zones	1,500 channels / 26 zones
Scan groups	300 with up to 50 members each
Trunked Mode	
Networks	4
Talkgroups	512 talkgroup lists
Zones and work groups	1,000 zones, 1,000 work groups
Bluetooth	Supported
ΟΤΑΡ	Supported (DMR Tier 3)
Dimensions (DxWxH)	
With Li-Ion standard battery	1.61 x 2.56 x 5.35in (41 x 65 x 136mm) excluding knobs
With Li-Ion high-capacity battery	1.77 x 2.56 x 5.35in (45 x 65 x 136mm) excluding knobs
Weight	
With Li-lon standard battery	11.46oz (325g) – no antenna 1939ar (377g) – no antenna
With Li-lon high-capacity battery	13.12oz (372g) – no antenna IP68 & IP65
Water and dust protection	
Channel Spacing	6.25/12.5/15/20/25/30kHz
Frequency increment/channel step	2.5/3.125/5/6.25kHz
Frequency stability	±0.5ppm (-22°F to 140°F/-30°C to 60°C)
Operating temperature	-22°F to 140°F (-30°C to 60°C)
ESD rating	+/-4kV contact discharge and +/-8kV air discharge
Rated audio	0.5W
Speaker rating	2W
Air interface standard	DMR: ETSI TS 102 361
Signaling options (Analog)	MDC1200, encode and decode, Two tone decode, PL (CTCSS), DPL (DCS). Selcall
Vocoder type	AMBE +2™
Packet Data	½ Rate, ¾ Rate, Full rate, Single Slot

TRANSMITTER**	VHF
Frequency range	136-174MHz
Output power	5W, 3W, 2W, 1W
FM hum and noise (Analog)	
12.5kHz channel	-40dB
25kHz	-45dB
Conducted/radiated emissions	-36dBm
Audio response	+1/-3dB
Audio distortion (Analog)	2.5% @1kHz,
	60% Deviation
Modulation limiting	
12.5/15kHz channel	±2.5kHz
25/30kHz channel	±5kHz
RECEIVER**	VHF
Frequency range	136-174MHz
Sensitivity (typical)	
Analog (12dB SINAD)	-120dBm(0.22µV)
DMR (1% BER (ETS300-113))	-119dBm (0.25µV)
DMR (5% BER)	-123dBm (0.16µV)
Intermodulation rejection	
EIA603D	75dB
ETS 300-113	70dB

\*\*Contact your local Tait representative for more information.

### TP9300E SPECIFICATIONS



RECEIVER (CONT.)**	VHF
FM hum and noise (Analog)	12.5kHz: -40dB
	25kHz: -45dB
Selectivity (Analog)	
EIA603E (2 Tone)	12.5kHz: 52dB
	25kHz: 73dB
ETS 300-086	12.5kHz: 62dB
	25kHz: 73dB
Audio distortion (rated audio)	2%

### MILITARY STANDARDS 810C, D, E, F AND G

Applicable MIL-STD	Method	Procedure	Applicable MIL-STD	Method	Procedure
Low pressure	500.5	2	Humidity	507.5	2
High temperature	501.5	1,2	Salt fog	509.5	1
Low temperature	502.5	1,2	Sand & Dust	510.5	1, 2
Temperature shock	503.5	1	Immersion	512.5	1
Solar radiation	505.5	1	Vibration	514.6	1
Rain	506.5	1,3	Shock	516.6	1, 4, 5, 6
BATTERY	136-174	•MHz			
DMR Mode Shift Life (5/5/9	0)				
Li-Ion Premium	19 hour	'S			

Li-Ion Standard	
Analog Mode Shift Life (5/5/90)	
Li-Ion Premium	
Li-Ion Standard	

19 hours 15 hours 15 hours 12 hours

EUROPE

**REGULATORY DATA<sup>2</sup>** 

VHF (136-174MHz)

EN300-086, EN300-113, EN300-219 EN301-489, EN60950

\*\*Contact your local Tait representative for more information.

#### TAIT DMR SOLUTION

Backed up by our proven radio network expertise, the TP9300 is part of our larger DMR offering. The Tait DMR solution consists of terminals, infrastructure, applications, services and integration with third party interfaces to ensure that your organization can reap all the benefits of the spectrally-efficient DMR standard in a mission critical environment.

Tait has taken every care in compiling this specification sheet, but we're always innovating and therefore changes to our models, designs, technical specification, visuals and other information included in this specification sheet could occur. For the most up-to-date information and for a copy of our terms and conditions please visit our website www.taitcommunications.com.

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Tait International Limited facilities are certified for ISO 9001:2015 (Quality Management System), ISO 14001:2015 (Environmental Management System) and BS OHSAS 18001:2007 (Occupational Health and Safety Management System) for aspects associated with the design, manufacture and distribution of radio communications and control equipment, systems and services. In addition, all our Regional Head Offices are certified to ISO 9001.

